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New York, NY 10023

EXAMINER

VINCENT, DAVID ROBERT

ART UNIT	PAPER NUMBER
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2661

DATE MAILED: 08/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/758,029

Applicant(s)

BLOCH ET AL.

Examiner

David R Vincent

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-10,13-15,17-21 and 24-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26-29 is/are allowed.
- 6) ☒ Claim(s) 1,6-10,13-15,18-21,24,25 and 30 is/are rejected.
- 7) ☒ Claim(s) 3-5 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1, 6-10, 13-15, 18-21, 24-25, and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Fan (US 6,324,165).

A plurality of logical links over a physical link (ATM uses virtual paths and virtual connections VPI/VCI over fibers, SDH or SONET lines, e.g., col. 5, line 7), assigning maximum limits (in ATM, maximum peak cell rate/PCR, sustainable cell rate/SCR,

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and maximum burst size/MBS are defined; the applicant failed to further defined what is meant by maximum limit, peak rate of each connection, e.g., col. 10, lines 59-63), corresponding to space available in a receiver buffer (cols. 3-25 make it abundantly clear that the credit allocated to the input apparatus and it's transmission links is directly linked to the size of the receiving buffers, see e.g., where over allocating credits leads to overbooking of the output ports which are associated with buffers, col. 3, lines 43-50; col. 6, lines 35-42), dynamically allocate (DRC, Figs. 2a-2c; dynamic rate based queue scheduling, Fig. 3; virtual rate shaping, Fig. 10; virtual channel shaping, col. 5, lines 1-59; programmable buffers, col. 7, lines 1-9; shaping queues, col. 12, lines 44-64; dynamic rate assigned to queues, col. 13, line 58-col. 14, line 24) a receive buffer (output buffers read on output modules, Figs. 1-2c, queue, Fig. 3, output buffers, Fig. 16, 18), sum of the limits exceeds the buffer space (queue exceeds a threshold, col. 3, lines 47-50; exceeds a capacity, col. 6, lines 35-42; overbooked, col. 7, lines 45-57), allocate credit (bandwidth) to a link (DRC feedback, Figs. 2a-2c; dynamic rate based queue scheduling, Fig. 3), when total credits (BW) given to a link is less than a link max (VC is not a PCR, col. 11, link may be exceeding more than a SCR but be less than PCR, col. 10, lines

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41-67), and that total credits (BW allocated/leaky bucket credits, col. 10, lines 59-67) of all links is less than buffer space (e.g., unused BW, col. 8, lines 1-9col. 11, lines 1-45), as specified in claims 1 and 15; withholding transmission (ATM cells are fixed length packets) if the credits are not sufficient (in ATM there is what is known as policing and this is where the cell loss priority/CLP bits can be set so that if a link violates a contract the cells are stopped from being transmitted, col. 3, lines 40-59, CAC, col. 10, lines 27-46; limit peak rate/using leaky bucket credits, col. 10, lines 59-67; peak rate enforcement, col. 11), as specified in claim 6-7, 13, 18 and 24, redistributing released credits (e.g., unused BW, col. 8, lines 1-9col. 11, lines 1-45; leaky bucket credits, col. 10, lines 59-67), as specified in claim 8, 10 and 19-21; using round robin (RR, e.g., Fig. 10 and respective disclosure), as specified in claim 9; switching fabric and lanes (ATM VPI/VCIs see e.g., Figs. 2-3 and respective disclosure), as specified in claims 11, and 22; sending a flow control packet back to source (DRC feedback, Figs. 2a-3 and respective disclosure), as specified in claims 14 and 25.

Response to Arguments

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3. Applicant's arguments filed 7/7/04 have been fully considered but they are not persuasive.

In re pg. 14 the applicant argues allocating bandwidth in a switch is not equivalent to allocating buffer space.

In response, the examiner disagrees. The receiving window or buffer and the credit allocated is directly related to the amount of throughput and/or bandwidth. One can easily see this by running a BW checker on their computer and watching how adjusting the receive window e.g., directly affects the BW.

After all the applicant is claiming allocating credit to a link. The examiner maintains that Fan discloses allocating credit to links by assigning buffers to QoS categories (col. 6, lines 57-67) and by the portions of the applied art which pertain to overbooking the output ports/buffers and having feedback from the output buffers/ports to the input links (cols. 3-25 make it abundantly clear that the credit allocated to the input apparatus and it's transmission links is directly linked to the size of the receiving buffers, see e.g., where over allocating credits leads to overbooking of the output ports which are associated with buffers, col. 3, lines 43-50; col. 6, lines 35-42).

In re pg. 14 the applicant argues Fan discloses less than or equal to.

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The examiner disagrees because Fan specifically states exceeding capacity (col. 6, lines 35-51).

In re pg. 15, the applicant argues Fan fails to disclose withholding transmissions.

In response, the purpose of using feedback (Fan: Fig. 2) from the output buffers/ports to the input device is to withhold traffic.

Regarding claim 30, the TX and RX are in separate entities of the network (Fig. 2). This is why feedback is needed. Applicant is reminded that shifting the location of parts does not make an invention patentable. See In re Japikse, 86 USPQ 70 (CCPA 1950); In re Larson, 144 USPQ 347 (CCPA 1965); and Nerwin v. Erlichman, 168 USPQ 177).

4. Claims 3-5, 17 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

5. The following is an Examiner's statement of reasons for allowance: Claims 26-29 are considered allowable since when reading the claims in light of the specification, none of the references of record alone or in combination disclose or suggest

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the combination of limitations specified in the independent claims.

Any comments considered necessary by Applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to David R

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Vincent whose telephone number is 703 305 4957. The examiner can normally be reached on M-TH.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Olms can be reached on 703 305 4703. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


David R Vincent
Primary Examiner
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August 4, 2004